

S/081/62/000/019/036/053
B101/B180

AUTHOR: Pevzner, L. V.

TITLE: Fenolit and Dekorrozit, water- and acidproof electric insulating plastics

PERIODICAL: Referativnyy zhurnal. Khimiya, no. 19, 1962, 512, abstract 19P75 (In collection: Plastmassy v mashinostr. M., Mashgiz, 1959, 42 - 54)

TEXT: "Fenolit" (F) and "Dekorrozit" (D) were produced by composing novolac phenol formaldehyde resin and polyvinyl chloride (ПФ-4 (PF-4)) with hydrophobic organic and mineral fillers (kieselguhr, kaolin, talc, wood powder, mica, etc.). F and D have higher mechanical strength, heat, frost, acid, water, and tropical climate resistance, and better insulating properties than the molding materials K-18-2 (K-18-2), K-21-22 (K-21-22), and K-214-2 (K-214-2). The physical, mechanical and dielectric properties of F and D are given, as well as the media to which F is resistant, and results of tests with D in various media. The production process for molding products from F are indicated. The use of F and D is described in various branches of industry. [Abstracter's note: Complete translation.]
Card 1/1

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158210

2109, 2209, 1436

S/000/00/00/00/00/00
R004/B000

AUTHORS: Smirnova A. M., Puzner L. V., Raykova T. V. and Likhman V. I.

TITLE: Study of the Effect of Additions of Dispersed Iron as an Active Filler on the Physico-mechanical Properties of Polymer Materials

PERIODICAL: Doklady Akademii Nauk SSSR 1960, Vol. 13, No. 3, pp. 603-606

TEXT: For their investigation the authors proceed from studies made by P. A. Retinger et al. (Refs. 1-3) according to which the introduction of active fillers into polymers results in a strengthening of the spatial network. These results are checked here by means of additions of iron powder to polyamide resin⁶⁸, polyethylene⁶⁸ and phenol formaldehyde resin⁶⁸ (resol resin). The iron powder (specific surface 1.2 m²/g) was prepared in A. T. Vagramyan's laboratory. The specimens obtained after introduction of Fe into the polymer solution were tested for strength.

Card 1/3

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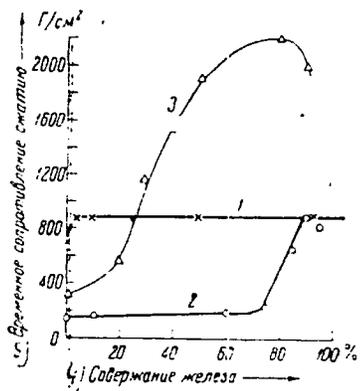
Study of the Effect of Additions of Dispersed Iron as an Active Filler on the Physical and Mechanical Properties of Polymer Materials S/3 2/2/2 / 100 000/00
BOC4/BOC6

and thermal stability. Film shows the effect of the Fe content on the polymer strength. Different behaviors were observed depending on the nature of the polymers. The thermomechanical investigation showed for resin I resin an increase of the crystallization temperature and a decrease of its ductility with an increase of iron content. Pure resin I resin 40% deformation at 300°C resin with 80% Fe 2% deformation at 300°C. In poly-ethylene deformation as a function of temperature is hardly influenced by iron (at a content of up to 80% Fe). A sudden hang-appears at 90% Fe. The 8% deformation occurring at 150°C remains constant up to 400°C. It is believed that highly filled poly-ethylene represents oriented films linked to the filler by dispersion chemical bonds. There are 4 figures and 2 Soviet references.

PRESENTED June 1960 by P. A. Reznik, A. G. ...
SUBMITTED June 1960

Card 2/3

8605.
S/C20/6C/135/003/037/039
B004/B060



Legend to Fig.1:
Mechanical strength of polymers as a function of the content of iron powder as a filler. 1: polyamide resin-68, 2: polyethylene, 3: phenol-formaldehyde resin (resol resin), 4: iron content, 5: resistance to compression (g/cm²).

Fig.1

Card 3/3

L 39686-66 EXP(j)/EWT(m)/I IJP(c) RM/GD-2
ACC NR: AP6009533 (N) SOURCE CODE: UR/0413/66/000/005,0069/0069

INVENTOR: Pevzner, L. V.; Akutin, M. S.; Mikheyev, I. P.;
Faydel', I. Ya.; Sokolov, A. D.; Timofeyev, A. V.

ORG: none

TITLE: Method for obtaining compacts. Class 39, No. 179466

SOURCE: Izobreteniya, promyshlennyye obraztsy, tovarnyye znaki,
no. 5, 1966, 69

TOPIC TAGS: polyvinyl chloride, phenolformaldehyde, compact

ABSTRACT: An Author Certificate has been issued for a method of ob-
taining compacts by combining phenol resin with polyvinyl chloride in
the filler, using a mechanochemical method. Phenol resins and aniline-
phenolformaldehyde resins are used to obtain materials which are
impervious to water, chemical, and tropical conditions. [NT]

SUB CODE: 11, 07/

SUBM DATE: 27Nov64/

Cord 1/1

UDC: 678.632.743.22.067.023.32

SHAROVA, A.M.; PEVZNER, V.I.; ... T.V.; ... V.I.

... dispersed ... active filler ...
... technical ... materials. ...
... 35 ... 63-66 ...

... vleno ... (holders)

PEVZNER, L.V.

Fillers for plastics. Izvdy IGFM n. 14, 1939. MIRA

PERZNER, L.V.

PLASTIC BOOK REPRODUCTION 80W/288A

5(3); 24(2) Moscow. Dva nachma-tshimicheskoy propagandy imeni V.I. Dzerzhinskogo Plastmassy y massinstroeniya (Plastics in Machine Building) Moscow, Mashgiz, 1979. 236 p. Brezha clip inserted. 9,000 copies printed. Sponsoring Agency: Otdel'noye po rasprostraneniyu politicheskikh i nauchnykh knizhek. (Title page): V.I. Zaygorodny; Ed. (Inside book): B.M. Sokolov, Engineer; Ed. of Publishing House: O.M. Kozlov; Tech. Ed.: A. P. Ozerov; Managing Ed. for Literature on Machine Building and Instrument Making (Mashgiz): B.V. Makrovskiy, Engineer.

NOTE: This collection of articles is intended for engineers and technicians in the machine-building industry.

COMMENT: This collection reviews the progress made by the Soviet Union in the field of manufacturing new plastic materials and fabricating different plastic material articles for use in the machine-building industry. Physicochemical and dielectric properties of phenolics, acrylonitriles, fluoroplastics, epoxy resins, polyamides, laminated plastics, and fibreglass plastics are analyzed and their use in machine building described. Characteristics and composition of adhesives and bonding agents are given and the technology of the pressing process described. Methods of coating with plastics and the protection against corrosion are reviewed. Methods of coating of plastics obtained by vacuum evaporation is reviewed, as well as metalization of plastics obtained by vacuum evaporation and articles made of plastic. Mechanization of certain operations and automatic control of various processes are discussed. No personalities are mentioned. References accompany individual articles.

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Chernikov, V.M.: Laminated Fibres With Fibreglass Base and Paper	29
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AVAILABLE: Library of Congress
Card 4/4
80/809
1-19-60

L 18147-66 EWT(m)/EWA(d)/EWP(j)/T RM

ACC NR: AP6002551

(A)

SOURCE CODE: UR/0286/65/000/023/0047/0047

AUTHORS: Laukevits, Ya. Ya.; May, L. A.; Dreymanis, Ya. A.; Tuters, A. P.;
Pevaner, L. Yu.; Vayvad, A. Ya.; Katkevich, A. K.

ORG: none

TITLE: Method for producing surface-active silicone polymers. Class 39,
No. 176683. (announced by Institute of Chemistry, Academy of Sciences Latvian SSR
(Institut khimii Akademii nauk Latvyskoy SSR); Central Structural Bureau For
Administration of the Chemical and Silicate-Ceramic Industry Sovnarkhoz, Latvian
SSR (Tsentral'noye konstruktorskoye byuro upravleniya khimicheskoy i silikatno-
keramicheskoy promyshlennosti sovnarkhoza Latvyskoy SSR))

SOURCE: Byulleten' izobreteniy i tovarnykh znakov, no. 23, 1965, 47

TOPIC TAGS: silicone, surface active agent, polymerization, esterification

ABSTRACT: This Author Certificate presents a method for producing surface-active
silicone polymers by esterification with alcohols and subsequent hydrolysis and
thermal condensation polymerization of a mixture of silicone monomers. To extend

Card 1/2

UDC: 678 84:66.093.8

2

L 18447-66

ACC NR: AP6002551

and decrease the cost of the raw basis, a mixture of trimethylchlorosilane with silicon tetrachloride is taken as the silicone monomer. The esterification is produced with alcohols having more than three carbon atoms.

SUB CODE: 07, 11/ SUBM DATE: 02Jul64

Card 2/2 7195

BARANOV, M.N., PEVZNER, L.Z.

Nucleic acid content in the superior cervical sympathetic ganglion under normal conditions and in excitation. *Biochimia*
28 no.6:958-963 N-D'63 (MIRA 17:1)

L. Laboratory of Functional Biochemistry of the Nervous System,
Pavlov Institute of Physiology, Academy of Sciences of the
U.S.S.R., Leningrad.

ACCESSION NR: AT3013140

S/3018/63/000/000/0327/0338

AUTHOR: Pevzner, L. Z.

TITLE: Cytoplasmic RNA content in neurons of different cellular layers of the brain cortex under normal and hypoxic conditions

SOURCE: Tret'ya Vsesoyuznaya konferentsiya po biokhimi nervnoy sistemy*. Sbornik dokladov. Yerevan, 1963, 327-338

TOPIC TAGS: cytoplasmic ribonucleic acid content, ribonucleic acid content, brain cortex, brain cortex cellular layer, hypoxia, visual cortex zone, auditory cortex zone, motor cortex zone, ultraviolet cytospectrophotometric method, neuron cytoplasm

ABSTRACT: 600 neurons were studied in 5 control cats and 5 experimental cats after intraabdominal injection of 2% amytal sodium solution (90 mg/kg). Hypoxia was induced in the 5 experimental animals by ligating both vertebral arteries and clamping the carotid arteries for 5 min periods with 5 min intervals for 1 hr. After trepanation the large hemispheres were removed and small pieces of gray matter were cut from the visual, auditory, and motor cortex

Card 1/3

ACCESSION NR: AT3013140

zones for fixation. Following histological investigation, cytoplasmic RNA content of nerve cells in the 5 cortex cellular layers were determined by an ultraviolet cytospectrophotometric method developed by T. Caspersson. Findings show that cytoplasmic RNA content of separate nerve cells in the different cortex layers fluctuates considerably and exceeds the maximum error for the ultraviolet cytospectrophotometric method. RNA concentration increases with greater distance from cortex surface in neuron cytoplasm of the auditory and visual zones and to a lesser degree in the motor zone. Layer distribution of cytoplasmic RNA absolute quantity in a single cell is similar for the various functional cortex zones. Acute hypoxia of the brain leads to decrease in cytoplasmic RNA content in the motor cortex zone and particularly in the visual cortex zone, but RNA changes in the auditory cortex zone are considerably less and in some cases there are no changes at all. Oxygen deficiency of the brain changes distribution of RNA molecules and the amount of space they occupy in neuron cytoplasm. In some cases RNA molecules are concentrated in separate parts of the cell and in other cases RNA molecules are diffusely scattered in the cytoplasm. Literature sources indicate that the auditory cortex zone requires less oxygen than the motor and

Curd 2/3

ACCESSION NR: AT3013140

visual zones. Assuming that metabolism of auditory zone nerve cells is less intense, this would explain their high resistance to hypoxia. Orig. art. has: 6 figures.

ASSOCIATION: Laboratoriya funktsional'noy biokhimi nervnoy sistemy* instituta fiziologii im. I. P. Pavlova AN SSSR, Leningrad (Nervous System Functional Biochemistry Laboratory of the Physiology Institute, AN SSSR)

SUBMITTED: 00

DATE ACQ: 28Oct63

ENCL: 00

SUB CODE: AM

NO REF SOV: 023

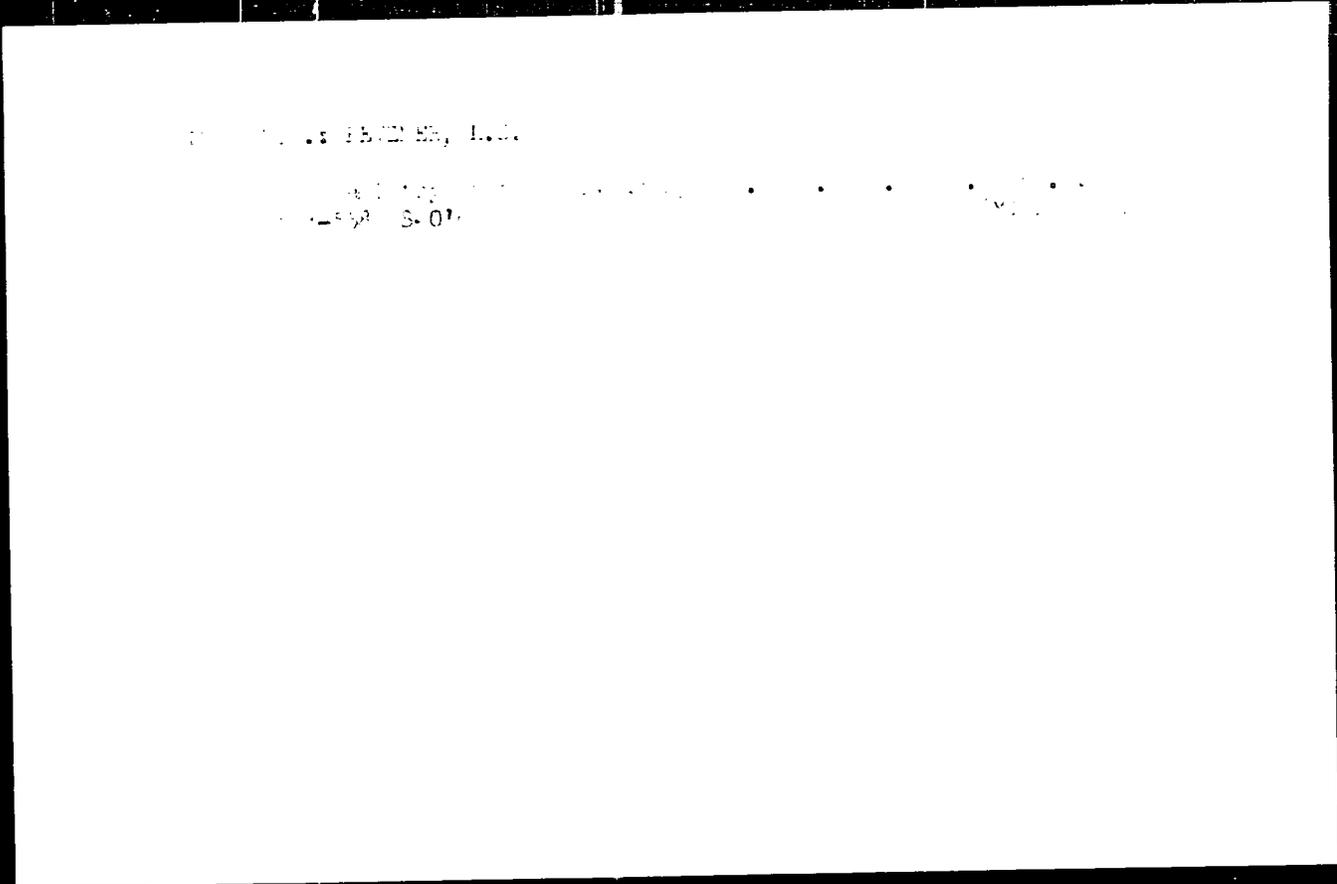
OTHER: 020

Card 3/3

BEVIER, I.I.

Effect of adrenaline injection on the norepinephrine content of
neural and glial cells of the sympathetic ganglion. Dokl. AN
USSR 156 no. 5:1413-1414, 1964. MIRA 1:0

I. Institut fiziologii im. I.I. Pavlova AN SSSR. Predstavleno
akademikom A.V. Mal'avinym.



PEVNER, I. I.

"Cytospectrophotometric Determination of the Nucleic Acids in the
Neurons of the Cortex During Various Types of Cerebral Hypoxia."

report submitted for the First Conference on the problems of Cyto and
Histochemistry, Moscow, 19-21 Dec 1968.

Laboratory of Biochemistry of the Nervous System, Institute of Physiology, Imeni
I. P. Pavlov, Academy of Sciences USSR, and Laboratory of Protein Chemistry of Leningrad
State University Imeni A. A. Zhdanov.

PEVZNER, L.Z.

Ultraviolet cytophotometry of the different functional zones of the
brain. TSitologiya 2 no.2:179-185 Mr→Ap '60. (MIA 1415)

1. Laboratoriya biokhimii nervnoy sistemy Instituta fiziologii AN
SSSR, Leningrad. (BRAIN) (PHOTOMETRY)

PEVZNER, L. Z.

Cand Med Sci - (diss) "Quantitative histochemical study of nucleic acids in neuroses of the brain cortex under various conditions of oxygen supply." Leningrad, 1961. 20 pp; (Leningrad Pediatrics Med Inst); 200 copies; price not given; (KL, 10-61 sup, #26)

FEVZNER, L.Z.

Content of cytoplasmic ribonucleic acid in the neurons of the individual cell layers of various functional zones of the cerebral cortex. Biokhimiia 27 no.4:663-669 J1-Ag '62. (MIRA 15:11)

1. Laboratory of Biochemistry of the Nervous System, Institute of Physiology, Academy of Sciences of the U.S.S.R., Leningrad.
(NUCLEIC ACIDS) (CEREERAL CORTEX)

PEVZNER, L.Z.

Effect of hypoxia on the amount of cytoplasmic RNA in neurons
of different layers of various functional zones of the cerebral
cortex. Dokl.AN SSSR 145 no.2:447-449 J1 '62. (MIA 15:7)

1. Institut fiziologii imeni I.P.Pavlova AN SSSR. Predstavleno
akademikom V.N.Chernigovskim.
(ANOXEMIA) (NUCLEIC ACIDS) (CEREBRAL CORTEX)

TOMINA, Ya.B.; LITVIN, N.F.

Content of protein in the cells of the tumor of the rat brain. *Russ. eksp. biol. i med.* 1983-84: 1-25.

1. Laboratoriya funktsional'noy biohimii nervnoy sistemy ZAV. - prof. N.S. Lemn. Institut fiziologii i med. anat. i anat. - akademika L.S. Vavilova, Leningrad, 1983. 25 str., 1983.

FEVZNER, L.L.; TOM , .D. (Leningrad)

Biochemical and cytochemical characteristics of cerebral tumors.
Vop. med. khim. 11 no.1:3-17 Ja-P '66. (MIRA 18:10)

PEVZNER, L.Z.

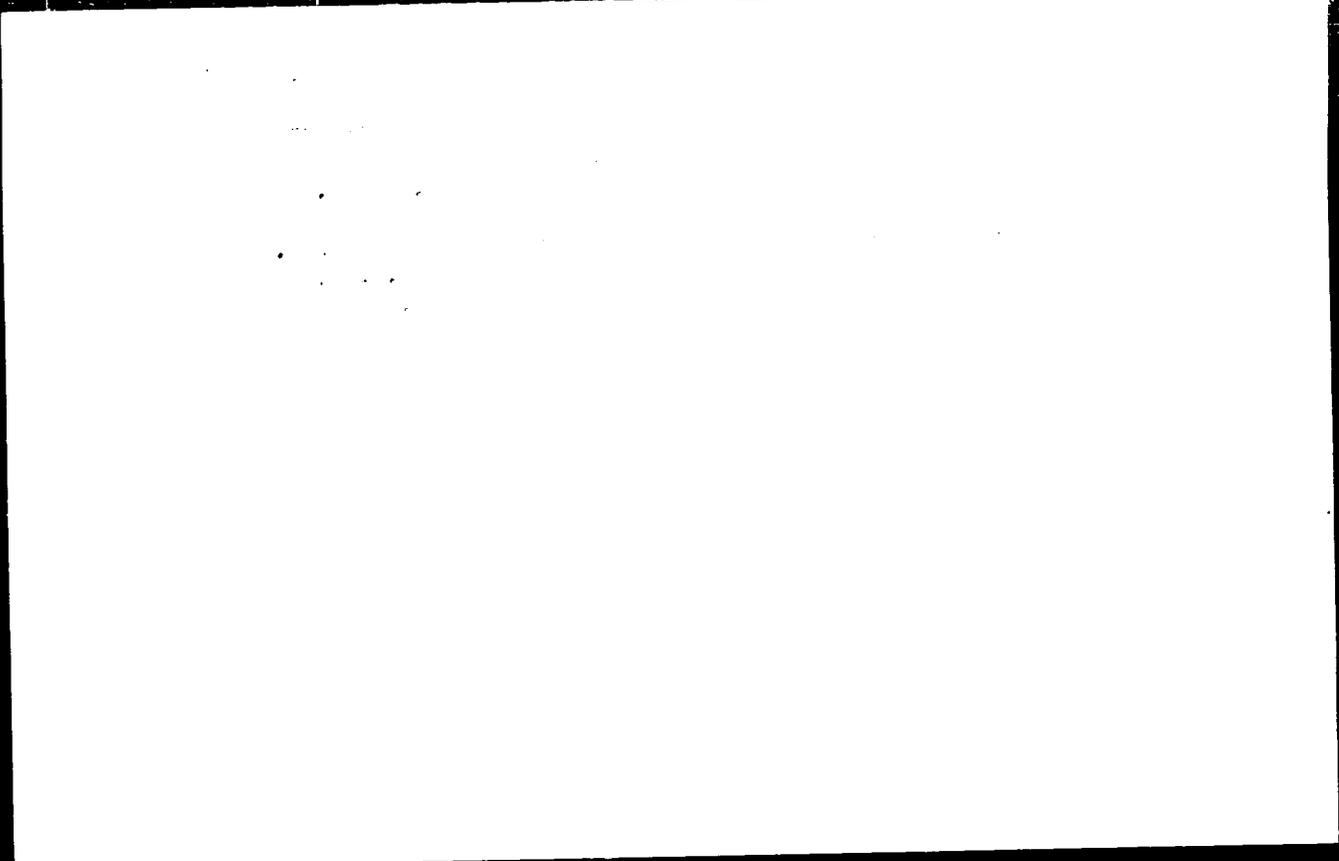
Histochemical methods in electron microscopy. Arkh. anat. gist.
i embr. 48 no.4:91-106 ap '65. (MIRA 18:6)

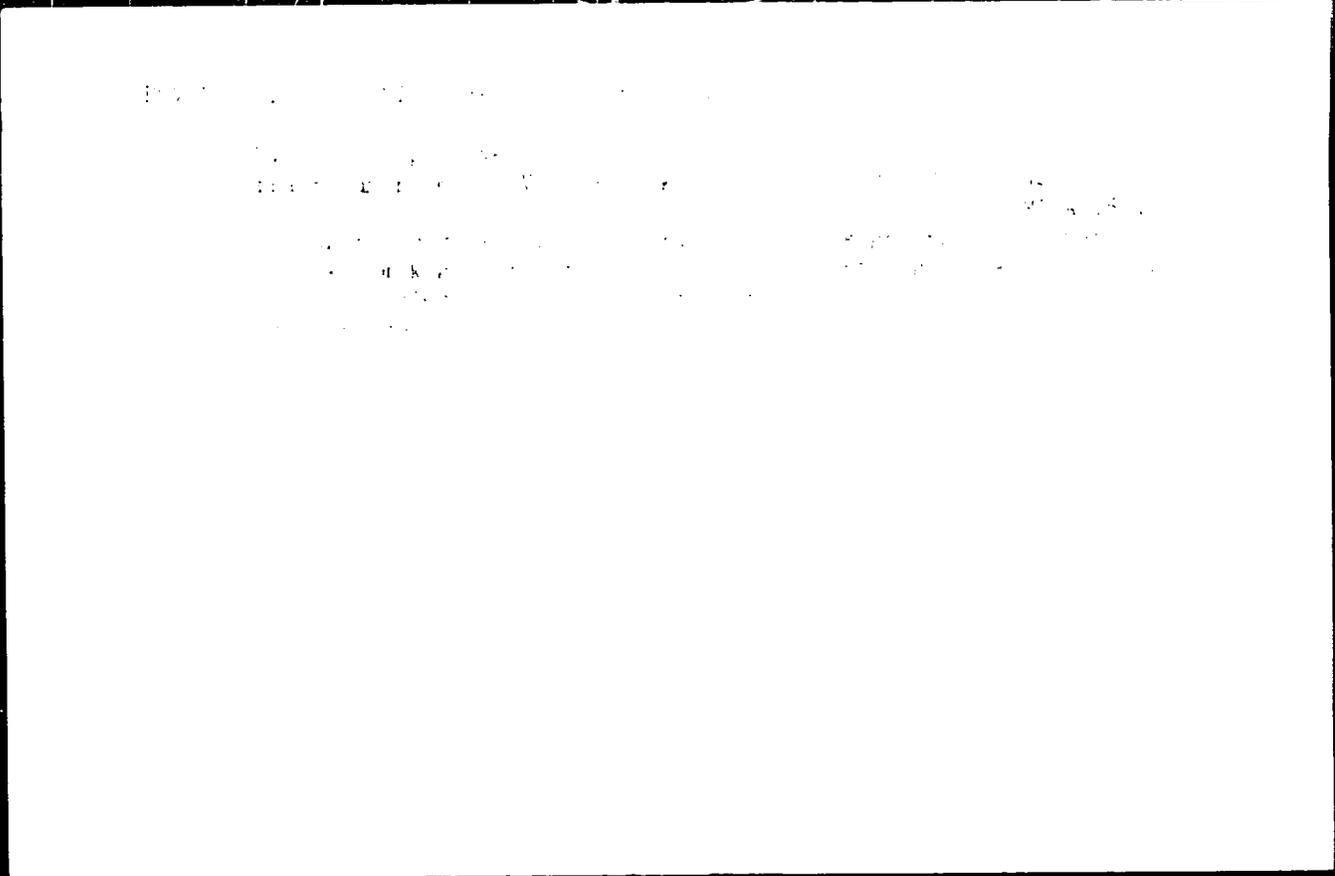
1. Laboratoriya funktsional'noy biokhimi nervnoy sistemy (zav. -
prof. N.N. Demin) Instituta fiziologii imeni Pavlova AN SSSR,
Leningrad.

PEVZNER, L.Z.

Amount of compact substances in the nucleus and cytoplasm of the neurons of autonomic ganglia of a cat in rest and in excitation.
TSitologiya 7 no.2:253-257 Mr-Apr '65. (MIRA 18:7)

1. Laboratoriya funktsional'noy biokhimi nervnoy sistemy Instituta fiziologii AN SSSR, Leningrad.





BARANOV, M.H. (Leningrad); FIVANIK, L. A. (Leningrad)

Topochemistry of the cerebral cortex. Usp. sov. biol. 58
n. 2:221-241 5-6 1975 MIRA 17:12;

ROSLYAKOV, F.; SHEHELCHKOV, G.; BEVZNER, M.

The interview is being conducted by UA3KAA. Radio no.3:22-23 Ag '65.
(MIRA 18:7)

1. Operatory radiostantsii Tsentral'nogo radiokluba SSSR UA3KAA (for
Raslyakov, Shchelchkov). 2. Spetsial'nyy korrespondent zhurnala
"Radio" (for Bevzner).

PEVZNER, M.

On a sunken ship. Voën. znan. 39 no.12:36 D '63.
(MIRA 17:1)

PEVZNER, S.; PEVZNER, M.

Automobile equipment for increasing driving safety. Avt. transp. 36 no. 11:
60-61 N '58. (MIRA 11:11)

(Automobiles--Safety measures)

BEZHAR, M.

Valuable experience of the "Vozrozhdenie" artel. (Moscow--Ag. 57) (Sikr. 100)

1. Technoruk arteli "Vozrozhdeniye."
(Moscow--Boots and shoes--Repairing)

TRYAPIK, Ye.S., MISHIN, V.I., PEVZNER, M.B., SHKOLYAR, M.S.

Equipment for the continuous measurement of liquid metal
temperature in the bath of an open-hearth furnace. Met.
i gornorud. prom. no. 6163-65 N-D '65. (MIRA 19.12)

ИЗВЕСТИЯ, М. .

Thermionic ion sources for mass spectrometry. Izv. Akad. Nauk SSSR, Ser. Fiz. Khim. Nauki, 1971, No. 1, p. 111-112.

1. Vsesoyuznyy nauchno-issledovatel'skiy institut khimii im. I.I. Mendeleeva.

PEVZNER, M.I.

Changes in the excitability of peripheral nerves and muscles of the extremities induced by direct current in lesions of the central nervous system. Zhur.nevr. i psikh. 59 no.4:458-461 '59. (MIRA 12:6)

1. Leningradskiy ordena Lenina institut usovershenstvovaniya vrachey imeni S.M.Kirova (nauchnyy rukovoditel' raboty - prof. S.N.Davidenkov).

(CENTRAL NERVOUS SYSTEM, dis.

peripheral nerve & musc. irritability to constant current (Rus))

(NERVES, PERIPHERAL, physiol.

irritability to constant current in CNS dis. (Rus))

(MUSCLES, physiol.

same)

PEVZNER, M.

Kashcheev and his friends. Radio no.1:10-11 Ja '62. (MIRA 15:1)
(Radio clubs) (Radio operators)

TARNOVSKIY, O.I.; PEVZNER, M.I., retsenzent; KONDRASHEV, D.D., kand.
ekonom.nauk, nauchnyy red.; PLIKMYANNIKOV, M.N., red.; SHAPEN-
KOVA, T.A., tekhn.red.

[Establishing prices for shoes] Obrazovanie tsen na obuv'.
Moskva, Gos.nauchno-tekhn.izd-vo lit-ry po legkoi promyshl.,
1959. 176 p. (MIRA 12:11)
(Boots and shoes--Prices)

PEVZNER, Mamuil Isaakovich; ACHARKAN, A.I., red.; MARSHAK, M.S.,
red.

[Fundamentals of diet therapy] Osnovy lechebnogo pitaniia.
Pod red. **A.I. Acharkana** i M.S. Marshaka. Izd. 3., perer.
Moskva, Gos. izd-vo med. lit-ry, 1958. 581 p.

(MIRA 15:8)

(DIET IN DISEASE)

FEVZNER, Samuil L'vov'ich; FEVZNER, M.I., retsenzent; PLEMYANNIKOV, M.N.,
red.; GOLUBKOV, V.A., tekhn.red.

[Capital assets and production capacities of light industry]
Osnovnye fondy i proizvodstvennye moshchnosti legkoi pro-
myshlennosti. Moskva, Izd-vo nauchno-tekhn.lit-ry RSFSR, 1960.
215 p. (MIRA 14:6)
(Capital) (Russia—Manufactures)

PEVZNER, M.I.

On I.A.I. Mareinis' book "Financing and crediting of the
enterprises of the sugar industry." Reviewed by M.I.
Pevzner. Sakh.prom. 34 no.8:77 Ag '60.
(MIRA 13:8)
(Sugar industry)

PEVZNER, M.I.; KOLOKOLOV, V.S.

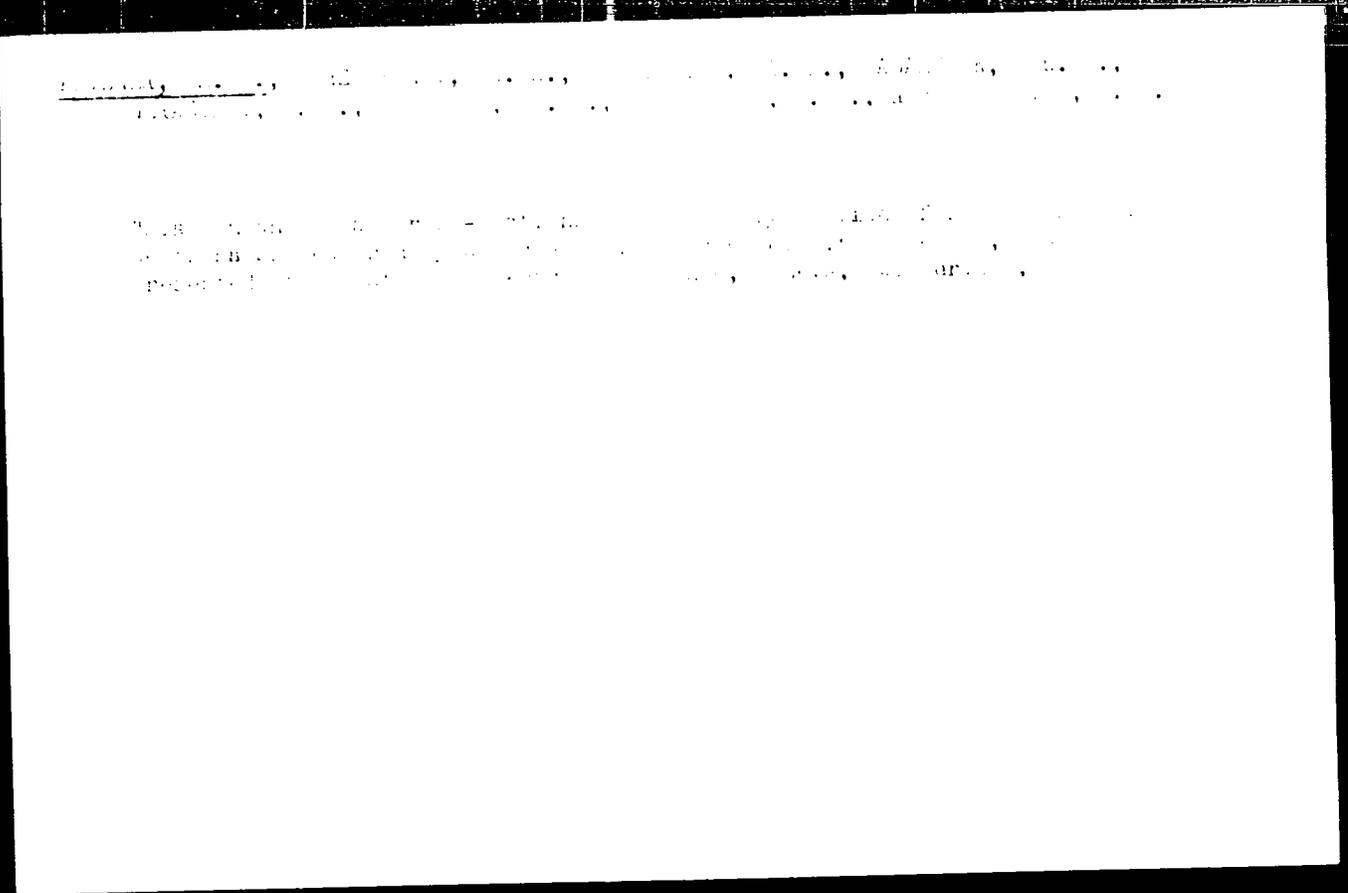
Protective casing for drums of wire-drawing machines. Sbor.rats.
predl.vnedr.v proizvod. no.5:39 '60. (MIRA 14:8)

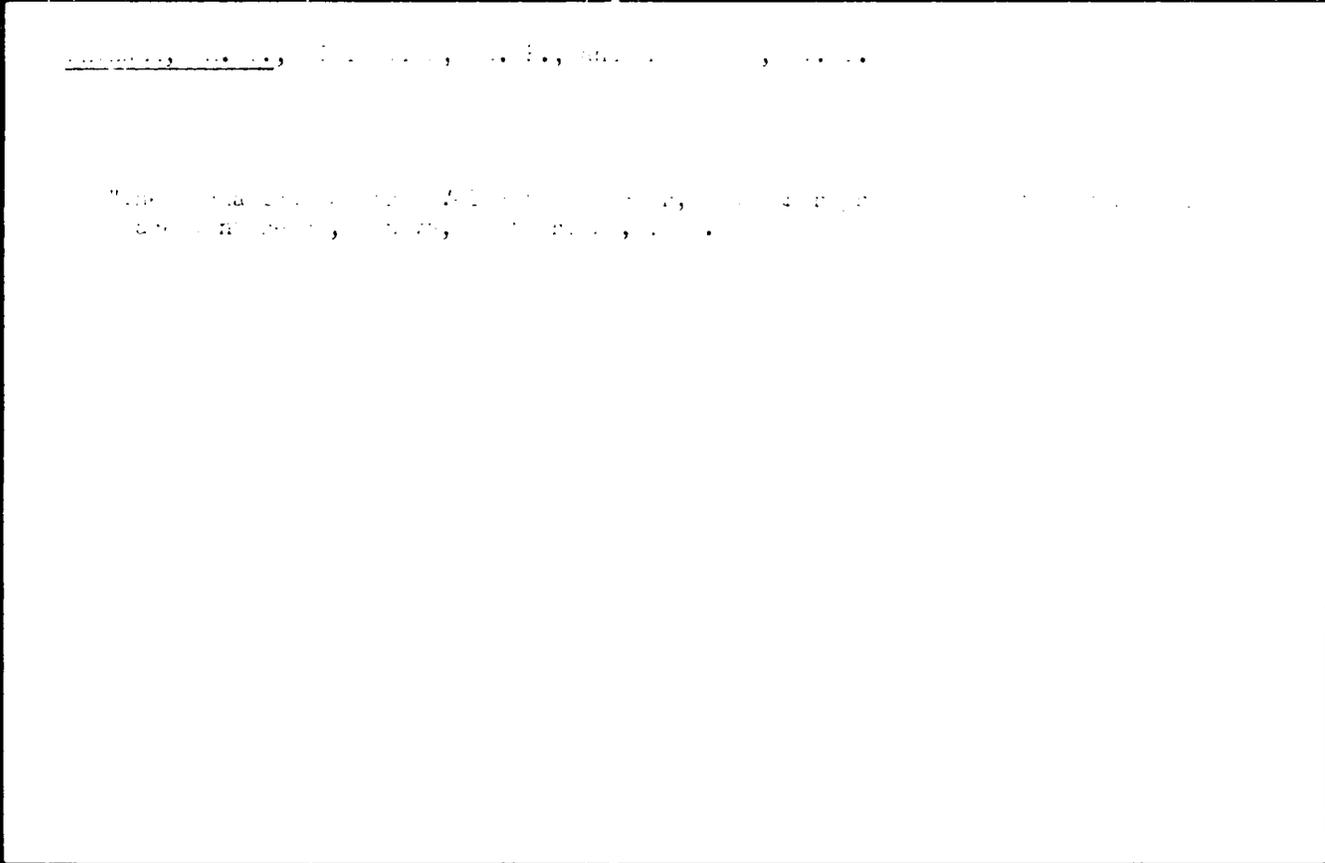
1. Zavod "Krasnyy Profintern".
(Wire drawing--Equipment and supplies)

MOSTOVOI, V.I.; PEVZNER, M.I.; TSITOVICH, A.P.

[Mechanical neutron velocity selector] Mekhanicheski selektor
neitronov. Moskva, 1955. 24 p.
(Neutrons—Measurement)

(MIRA 14:7)





PEVZNER, M. I.

1/2 Rm

4098 AEC-tr-2435((Pt. 1) (p. 23-32))
 MEASUREMENTS OF THE AVERAGE NUMBER OF NEU-
 TRONS EMITTED IN THE FISSION OF SOME URANIUM
 AND PLUTONIUM ISOTOPES. PARTS I, II, AND III. V. I.
 Kalashnikova, A. V. Krasnushkin, V. I. Lebedev, L. A.
 Milashina, M. I. Pevzner, P. E. Spivak, and V. P.
 Zolotareva. p. 123-32 of CONFERENCE OF THE ACADEMY
 OF SCIENCES OF THE USSR ON THE PEACEFUL USES OF
 ATOMIC ENERGY, JULY 1-5, 1955, SESSION OF THE
 DIVISION OF PHYSICAL AND MATHEMATICAL SCIENCES.
 (Translation). 10p.
 This paper was originally abstracted from the Russian
 and appeared in Nuclear Science Abstracts as NSA 5-7832.

7
Rm

PEVZNER M. I.

HUGHES, D.J.; BURSHTEYN, E.L. [translator]; PEVZNER, M.I., redaktor;
TELESNIN, N.L., redaktor; IOVLEVA, N.A., tehnicheskiy redaktor

[Neutron optics. Translated from the English] Neitronnaya
optika. Perevod s angliiskogo E.L.Burshteina. Moskva, Izd-
vo inostranoi lit-ry, 1955. 154 p. (MIRA 9:2)
(Optics, Physical) (Neutrons)

SUBJECT USSR / PHYSICS CARD 1 / 2 PA - 1116
AUTHOR PEVZNER, M.I., DANELJAN, L.S., ADAMCUK, JU, V.
TITLE The Total Neutron Cross Section of Ra²²⁶.
PERIODICAL Atomnaja Energija, 1, fasc.4, 67-70 (1956)
Issued: 19.11.1956

Here the results of measurements of the total cross section of Ra in the energy interval 0,022-50 eV, which were carried out in 1953, are published.

Apparatus and test conditions: This total cross section was measured with a mechanical selector with transversal rotator. The container with the sample was placed on an adjusting table between two nickel collimators while measuring was being carried out. The shape of the neutron bundle when leaving the collimator was determined by the activation of a silver foil and following exposure of an X-ray film to this foil.

The samples consist of RaSO₄, for the neutron cross sections of S and O are small and thoroughly investigated. The thinnest sample, which was destined for measuring in the domain of resonance, consisted of RaBr. The RaSO₄ was filled into hermetically closed special containers of thin boron-less glass, and the RaBr was filled into a hermetically closed brass container.

Test results and their discussion: The energy dependence of the total neutron cross section of Ra²²⁶ is shown in a diagram as a function of the neutron energy (0,022-50 eV); within the domain of thermal energies the cross section of Ra changes like $1/v$. At 0,537 eV there is a resonance level. The parameters of the

PEVZNER, M I

Category : USSR/Nuclear Physics - Nuclear Reactions

C-5

Abs Jour : Ref Zhur - Fizika, No 2, 1957 No 3240

Author : Kalashnikova, V I , Lebedev, V.I., Mikaelyan, L.A. Pevzner, M I.

Title : Number of Neutrons Emitted by Pu²³⁹ Fissioned by Thermal and Superthermal Neutrons.

Orig Pub : Atom. enirgiya, 1956, No 3, 11-12

Abstract : A comparison was made of the average number $\bar{\nu}$ of neutrons emitted upon fission of Pu²³⁹ by thermal neutrons and by neutrons in the energy range of 0.15 -- 0.5 ev, corresponding to resonance in the formation of the intermediate Pu²⁴⁰ nucleus. The work was performed with a neutron beam emerging from the reflector of the RFT reactor. The procedure for the relative measurements of $\bar{\nu}$ was described previously (Referat. Zh. Fizika, 1950, 16204). The resonant neutrons were separated with filters made of Cd and Gd.

The measurements have shown that in the range of energies under investigation the value of $\bar{\nu}$ remains constant (with accuracy to within 2%). This result agrees with data by Leonard et al (Leonard, B.R. Jr. et al, Bull. Am. Phys. Soc., 1956, 1, No 1, A2) and Auclair et al (Auclair, J-M., et al, C r. Acad. Sci. 1955, 241, 1935) and contradicts

Card : 1/2

PEVZNER, M.I.

CARD 1 / 2

PA - 1003

SUBJECT USSR / PHYSICS
 AUTHOR GUREVIČ, I.I., PEVZNER, M.I.
 TITLE The "Regulation" of the Nuclear Levels
 PERIODICAL Zurn. eksp. i teor. fis, 21, fasc. 1, 102-104 (1956).
 Issued: 9 / 1956 reviewed: 11 / 1956

The data obtained by the methods of neutron spectroscopy concerning the arrangement and the parameters of nuclear levels at excitation energies of the order of the binding energy of a neutron permit investigation of the empiric rules of the behavior of the characteristics of the level. Thereby it is possible to re-examine and to improve existing nuclear theories. It is not possible to do without the investigation of data obtained with the help of target nuclei with odd atomic weight (and consequently with two systems of nuclear levels which correspond to the spins $i + 1/2$ and $i - 1/2$) (i denotes the spin of the target nucleus). If for each level system the distribution $W(\xi)d\xi = \exp\{-\xi/D\} d\xi/D$ is valid (where ξ denotes the distance between levels and D the average value of the level), the resulting distribution has the same form with $D = d_1 d_2 / (d_1 + d_2)$. (d_1 and d_2 are the distances between the levels in the corresponding systems).
 The experimental data concerning the location of the following levels are used: In¹¹³, In¹¹⁵, Cs¹³³, Tb¹⁵⁹, Ho¹⁶⁵, Tm¹⁶⁹, Hf¹⁷⁷, Hf¹⁷⁹, Ta¹⁸¹, U²³⁵, U²³⁸. For the purpose of increasing the statistical accuracy of the experimental distribution for the levels of each isotope the values $x_i = \xi_i/D$ were computed, following which the distribution of the levels over the x_i was determined for all nuclei enumerated.

USSR/Nuclear Physics - Nuclear Reactions.

C-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8807

Author : Yerozolimskiy, B.G., Kutikov, I.Ye., Dlbrynin, Yu.P.,
Pevzner, M.I., Danelyan, L.S., Moskalev, S.S.

Inst :

Title : Measurement of the Average Quantity of Neutrons Emitted
Per Single Capture, ν_{eff} for Specimens of Pu^{239} with
an Admixture of the ~~-----~~ Pu^{240} Isotope and Measure-
ment of the Effective Resonance Integral of the Capture
of Pu^{240} .

Orig Pub : Atom. energiya, 1956, No 3, 27-30

Abstract : ν_{eff} was measured for specimens of Pu^{239} with addition
of various quantities of Pu^{240} in the vicinity of the
Fermi spectrum with a left boundary of 0.15 (gadolinium
filter) and 0.4 ev (cadmium filter) for two series of spe-
cimens containing the following additions of Pu^{240} (in
percent): 0, 1.5, 2.5, 6.5, and 16. The Pu^{240} contents

Card 1/3

USSR/Nuclear Physics - Nuclear Reactions.

C-5

Abs Jour : Ref Zhur - Fizika, No 4, 1957, 8807

was determined in one specimen by measuring the number of spontaneous fissions in a multi-layer ionization chamber; in other specimens the relative amount of Pu²⁴⁰ was determined by comparing the areas of the dips in the resonance of Pu²⁴⁰ at 1.06 ev on the transmission curves, obtained by means of a mechanical neutron selector.

The procedure for determining ν_{eff} is based on the measurement of the effect of the capture and production of neutrons from the disturbance to the neutron field in a graphite prism with a central cavity, in which the investigated specimen is placed (see Referat Zhur Fizika, 1957, 557). The ratios ν''_{eff}/ν'_{eff} of specimens

with and without Pu²⁴⁰ admixtures were measured. The results of the measurements are given in the following table:

Card 2/3

		Percentage Pu ²⁴⁰ in the specimen.							
		0	1,6	2,5	6,5	16			
Weight of specimen, grams.		8	0,55	0,39	1,00	0,51	1,02	0,52	0,99

APPROVED FOR RELEASE: 06/15/2000 CIA-RDP86-00513R001240710019-6"

		$\frac{\nu''_{eff}}{\nu'_{eff}}$ behind gadolinium filter.						
1,00	$\frac{\nu''_{eff}}{\nu'_{eff}}$	0,97	0,96	0,96	0,86	0,87	0,77	0,83

		$\frac{\nu''_{eff}}{\nu'_{eff}}$ Behind cadmium filter.					
1,00	$\frac{\nu''_{eff}}{\nu'_{eff}}$	0,84	1,81	1,81		0,49	0,55

The resonance integral of absorption of Pu²⁴⁰ is $\Sigma_{240} = (9,000 \pm 3,000) \times 10^{-24} \text{ cm}^2$.

Card 3/3

PEVNER, M. I.

4019

REPULSION OF NUCLEAR LEVELS. I. I. Ostevich and M. I. Pevner (USSR Academy of Sciences, Moscow). Nuclear Phys. 2, 575-81(1957) Jan.

The size distribution of level spacings in the region of compound nucleus excitation energies of the order of the neutron binding energy is considered. By analyzing available data derived by neutron spectroscopy, it is shown that the actual size distribution of level spacings qualitatively differs from random distribution. The relative number of near-lying levels is considerably smaller than for a random distribution. The conclusion is drawn that nuclear levels "repel" each other with a distribution approaching equidistance. This conclusion is based on experimental data relating mainly to odd-mass target nuclei. Assuming naturally that only equal spin levels interact, the observed "repulsion" may prove to be less pronounced owing to overlapping of the two sets of levels. (auth)

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AUTHORS: Vlasov, N., Groshev, L., Mostovoy, V., Pevzner, M.. 89-1-20/29

TITLE: Interaction Between Neutrons and Nuclei (Vzaimodeystviye neytronov s yadrami).

PERIODICAL: Atomnaya Energiya, 1958, Vol. 4, Nr 1, p. 96 - 101 (USSR)

ABSTRACT: From September 9, to September 13, 1957 an International Conference took place at New York Columbia University, which was attended by more than 200 physicists. A total of 70 lectures was delivered. The most important results are the following: The reaction cross section for $B^{10}(n,\alpha)$, $Li^6(n,\alpha)$ and $He^3(n,p)$ must be measured with much greater accuracy. Description of a neutron spectrometer with a pulsating neutron source from a synchrocyclotron. Resolving power obtained: $>0,01 \mu s/m$ with a flying distance of 35 m. A mechanical selector which attains a ray-resolution of 0,01 to 0,015 $\mu s/m$. At Nd^{143} a negative point of resonance was uniquely found: $E_0 = -1,5 \pm 0,5$ eV; $\sigma_0 \Gamma^2 = 415$ b(eV)². Determination of the yields of various isotopes at the fission of U^{233} with $E_n = 1,8$ eV and the fission of U^{235} with $E_n > 2$ eV. A three-fold fission of U^{235} with neutrons in the energy range of from 0,02 to 0,2 eV was not found.

Card 1/3'

Interaction Between Neutrons and Nuclei.

89-1-20/29

A magnetic spectrograph was built for the purpose of measuring the energy of fission fragments.

For Pu²⁴⁰ resonances at $E_n = 1,056$ eV; 20,4 eV and 38,2 eV were found. For Pu²⁴² only resonances at 2,65 and 53,6 eV were found up to 1 KeV. For I¹²⁹ and Zr⁹³ no resonance was found within the range of from 1 to 100 eV.

$$\frac{\sigma_f(U^{233})}{\sigma_f(U^{235})} = 0,9323 \pm 0,0013$$

$$\frac{\sigma_f(Pu^{239})}{\sigma_f(U^{235})} = 1,4056 \pm 0,0009$$

$$\frac{\sigma_f(Pu^{239})}{\sigma_f(U^{233})} = 1,5048 \pm 0,0009$$

$$\frac{\sigma_f(Pu^{241})}{\sigma_f(Pu^{239})} = 1,351 \pm 0,0006$$

for neutrons with
Maxwell distribution
and $T = 20^\circ C$

$$\sigma_0 \text{ for Au} : 98,8 \pm 0,3 \text{ b} \quad E_n = 2200 \text{ m/sec}$$

$$T_{1/2} \text{ of } U^{233} = (1,611 \pm 0,008) \cdot 10^5 \text{ a}$$

$$\sigma_f \text{ for } U^{233} : 524 \pm 4 \text{ b} \quad E_n = 2200 \text{ m/sec}$$

Card 2/3

Interaction Between Neutrons and Nuclei.

89-1-20/29

$$\frac{\int \sigma_c \frac{dE}{E}}{\sigma_0 \cdot 2200 \text{ m/sec}} = 25,5 \pm 1,0\% \text{ for Pu}^{240}$$

The following reactions are described:

 $U^{235}(d,p); U^{235}(d,df); U^{235}(d,n); U^{235}(d,pf) \quad E_d = 1,4 \text{ MeV}$
 $U^{238}(n,n'); U^{238}(n,n''); Pu^{239}(n,n') \quad E_n = 0,00; 1,0 \text{ and } 2,0 \text{ MeV}$
 $Fe^{56}(n,n'); I^{127}(n,n') \quad E_n = \sim 1,5 \text{ MeV}$
 $F(n,f) - 15 \text{ resonances from } 2 \text{ to } 15 \text{ eV were found}$
 $(n-p), (n-d), (n-2n), \text{ reactions on various elements}$
 $D(p,n) \quad E_d = 3,0 \text{ up to } 4,9 \text{ MeV.}$
Furthermore, the f -spectra of the most varied $n-f$ processes were measured. There are 2 figures.

AVAILABLE: Library of Congress.

Card 3/3

21(7)

SOV/89-6-5-14/33

AUTHORS: Adamchuk, Yu. V., Moskalev, S. S., Pevzner, M. I.

TITLE: Total Neutron Cross Section of Np^{237} Within the Energy Range of 2 - 10,000 ev (Polnoye neytronnoye secheniye Np^{237} v oblasti energiy 2 - 10,000 ev)

PERIODICAL: Atomnaya energiya, 1959, Vol 6, Nr 5, pp 569 - 571 (USSR)

ABSTRACT: Measurement was carried out in 1956 with 2 NpO_2 -samples containing 11.6 % Pu^{239} . The preparations had a thickness of 5.31 g/cm^2 and 0.702 g/cm^2 respectively. A mechanical selector with a 80-channel time-analyst, which is in operation with the RPT-reactor, was used. The mechanical selector consists of 2 cylinders (l = 40 cm, R = 5 cm) mounted on one axis. The cylinders have 6 thin radial incisions which are uniformly distributed along the circumference. The flight distance was 24.97 m. The rotor performed 25,000 rotations per minute. Maximal resolution was 0.12 $\mu\text{sec/m}$. 7 boron proportional counters which were combined in a bunch, served as neutron detector. Their effective length was 49.5 cm. The BF_3 was enriched with B^{10} . The total cross section measured is shown in form of a graph. From

Card 1/2

S07/89-6-5-14/33

Total Neutron Cross Section of Np^{237} Within the Energy Range of
2 - 10,000 ev

3.86 \pm 0.02 ev to 18.9 \pm 0.2 ev 15 resonances are visible
of which 2 may, however, be ascribed to Pu^{239} . For Γ_n^0/D
a value of (0.68 \pm 0.13) $\cdot 10^{-4}$ was calculated. The total
resonance integral within the range of from 2.7 to 12,000 ev
amounts to 360 b. There are 2 figures, 1 table, and 5 ref-
erences, 3 of which are Soviet.

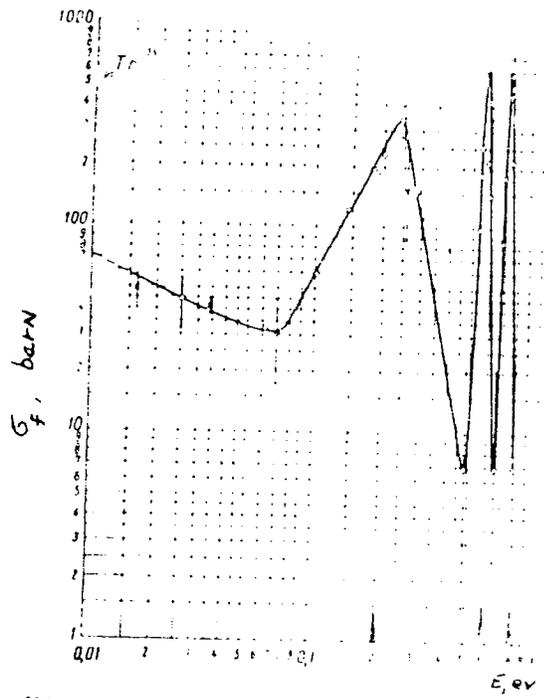
SUBMITTED: January 6, 1959

Card 2/2

211 11 1967

AUTHORS: Kozlov, V. I. _____
 TITLE: _____
 PERIODICAL: _____ (1967)
 ABSTRACT: Reliability of the \sqrt{E} approximation of the \sqrt{E} function in the region of small E values. The results of the numerical calculation of the function \sqrt{E} are compared with the results of the approximation $\sqrt{E} \approx \alpha \sqrt{E}$ (where α is a constant). The results show that the approximation is valid for $E < 10^{-4}$. The results of the numerical calculation of the function \sqrt{E} are compared with the results of the approximation $\sqrt{E} \approx \alpha \sqrt{E}$ (where α is a constant). The results show that the approximation is valid for $E < 10^{-4}$.

Card 1



Card 3/5

FIG. 1. Experimental cross-sections for the reaction $n + \text{C}^{12} \rightarrow \text{C}^{13} + \gamma$ at low energies. The solid line represents the total cross-section, and the dashed line represents the capture cross-section. The data points are shown as open circles.

Monochromatic Neutron Fission Cross
 Section of Th²²⁹ in the Energy Interval
 0.02-0.8 ev. Letter to the Editor

77214
 SOV/69-8-1-20

since apparently it refers to the reactor neutron spectrum, and the Th²²⁹ cross section in the thermal region does not follow the 1/√E law. The authors note that the 0.563 and 0.727 ev resonances contribute little to the resonance integral:

$$J_{Th} = \int_{0.4}^{\infty} \sigma_f(E) \frac{dE}{E}$$

Using the equation:

$$J_{Th} = \frac{\sigma_{Th}^{R} - 1}{2} \frac{\sigma_{Cd}^{R} - 1}{\sigma_{Cd}^{Th} - 1}$$

Card 4/5

FEVZNER, M. I. and DEMIDOV, A. M.

"The Main Trends of Work in some Low Power Research Reactors."

report presented at the Symposium on Programming and Utilization of Research Reactors, IAEA, Vienna, 16-21 Oct 1961.

27 20 51/000/003/002/041

E114/E155

26.2264

AUTHORS Leitman, B. I., Kuznetsov, A. S. and Levner, M. I.

TITLE A mechanical neutron monochromator for the energy region 0.00 - 0.10 eV

PERIODICAL Priroda i KHV na eksperimenta 1961, No 3, pp 32-39

TEXT Mechanical neutron monochromators have been described in Soviet and foreign literature. They are useful when fairly powerful beams of monoenergetic neutrons are required. They have the advantages over crystal monochromators, giving a larger neutron flux without increasing the size of the order reflection but they are usually more complicated in construction in the energy range 0.1-10 eV. This article reports on the construction and properties of a mechanical neutron monochromator. The instrument was required to separate (with a resolution of 10-30%) neutrons of the same energy level up to 0.1 eV, to have a large flux and to achieve the greatest possible rise in neutron flux. The monochromator ensure satisfactory results at a low level of background. The construction is illustrated in the figures with the numbers have

Card 1/8

A mechanical neutron monochromator

SI 10.61/000/003/002/041
E.94/E155

slot width of 0.347 mm. The slits are wedged in place. The total weight of the rotor was 270 kg and it was designed to operate at speeds up to 12000 r.p.m. A hot air turbine was finally selected in order to minimize vibration. The construction of the driving turbine is described. It can operate at speeds up to 13 000 r.p.m. On leaving the source the beam passes through three collimators before reaching the rotor. The two outer collimators govern the angle of divergence of the neutron beam and the intermediate one reduces the background of stray neutrons. In the plane perpendicular to the slot walls the beam is of constant width and in the plane parallel to the slot walls the edges from 100 mm at the luminous surface to 15 mm at the rotor. The cross section of the beam and hence the resolution may be controlled by adjusting the first collimator which is of variable slot width. A graphical method was used to determine the spectral lines of monochromatic neutrons and the procedure adopted is explained. Because the slots move in a circumference the spectral lines are not quite the same as they would be for a screw shaped slot or for slots with parallel walls moving in a straight line. Residual spectral lines determined graphically by the method described are shown in Fig 8 Card 3/8

Y

A mechanical neutron modulator

120/50/000/003/002/041
2 14 155

for two values of the angle θ between the line of the beam and the centre line of the rotor. In these graphs the curve marked 1 corresponds to the end of the slot. Fig 8 shows graphs of the optimum resolution for various energies with the rotor running at a speed of 9000 rpm with appropriate values of θ . The resolution may be improved by changing the height of the slot used. The intensity of the appropriate neutrons may then be increased without appreciable disturbing the resolution by using a wider beam of appropriate energy. In order to test the quality of assembly of the modulator, measurements were made of the rotor position corresponding to the θ values. The counting speed of a neutron detector was plotted as function of the angle θ with the modulator running. Fig 9 shows typical curves. The dotted curve shows the calculated spectral line, the circles 2 correspond to measurements without a cadmium filter and the crosses 3 to the use of a cadmium filter. It will be seen that there is excellent agreement between theory and experiment when a cadmium filter is used and considerable divergence if it is not. The theoretical factor was calculated for $\theta = 0$ and compared with the experimental value. It was found

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A mechanical neutron monochromator 5/120/61/000/003/002/041
E194/E155

that when a cadmium filter was used the average experimental factor was 0.86 of the calculated value, and when no filter was used considerably exceeded it. The effect is obviously due to extra neutrons passing through the slot by total internal reflection from the slot walls. The effect of internal reflection is noticeable for neutrons with an energy of about 0.001 eV. For investigations in the range of 0.001-0.0001 eV, a second rotor was made of similar construction but with the plates made of plexiglass (perspex). In order to suppress reflection the plates were covered with a layer of polyisobutylene. Satisfactory results were obtained with this rotor. Numerous tests have now been made with this monochromator and they have confirmed its suitability for measuring various neutron sections and gamma ray spectra.

V.I. Mostovoy is mentioned in the article.

There are 11 figures and 4 references: 3 Soviet and 1 English.

The English language reference reads as follows:

Ref.2: J.G. Dash, H.S. Sommers. Rev. Scient. Instrum., 1953, V.24,
2, 91.

Card 5/5

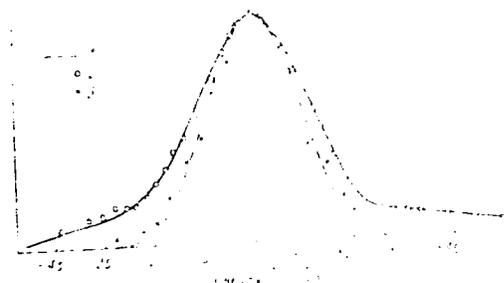
A mechanical neutron monochromator ... S/120/61/000/003/002/041
E194/E155

X

ASSOCIATION: Institut atomnoy energii AN SSSR
(Institute of Atomic Energy, AS USSR)

SUBMITTED: August 20, 1960

Fig. 10



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ACCESSION NR: AT3012 54

S/2749/62/008/000/0075/0079

AUTHOR: Pevzner, M. I.

TITLE: Study of fission physics by neutron spectroscopy

SOURCE: AN GruzSSR. Institut fiziki. Trudy*, v. 8, 1962, 75-79

TOPIC TAGS: fission, nuclear fission, neutron spectroscopy, fission cross sections, spin levels, resonances, resonance width, fission width distribution, scintillation fission chambers, neutron monochromatization

ABSTRACT: The historical development of the studies of various effects of neutron energy on fission is traced. Topics discussed include the cross sections for the interaction between monochromatic neutrons and heavy nuclei, fission width distribution, determination of spin levels, fission at low neutron energies, neutron monochromatization, scintillation fission chambers, and ternary fission. Orig.

Card 1/2

ACCESSION NR: AT3012954

art. has: 2 figures.

ASSOCIATION: Institut fiziki AN GruzSSR (Physics Institute, AN
GruzSSR)

SUBMITTED: 00

DATE ACQ: 04Oct63

ENCL: 00

SUB CODE: PH, NS

NO REF SOV: 006

OTHER: 004

Card 2/2

41396

S/089/62/013/004/003/011
B102/B108

AUTHORS: Z. P. Levner, M. I., Flerov, M. N., Kreflyev, A. V., Sasalajev, M. I., Korolev, V. M., Moskalev, S. S., Oshnev, V. P.

TITLE: 7-Mev linear electron accelerator designed for neutron spectroscopy

PERIODICAL: Atomnaya energiya, v. 15, no. 4, 1962, 327 - 336

TEXT: The accelerator, designed by the Radiotekhnicheskij institut AN SSSR (Radio Engineering Institute AS USSR) and used for neutron spectroscopy at the Orlovskaya Institute of Atomic Energy im. I. V. Kurchatova AN SSSR (Orlovskaya Institute of Atomic Energy im. I. V. Kurchatov AS USSR), is a traveling-wave accelerator which produces a pulsed electron beam with an energy of 7 Mev and a current of up to 500 ma. It operates on 2764 Mc/sec at a pulse repetition frequency of 100 cps and with pulse durations of $0.5 \mu\text{sec}$, or $3.25 \mu\text{sec}$. At the input of the diaphragmed waveguide there is a field of 150 kv/cm. The efficiency of h-f energy conversion is 70-80%. The maximum h-f power for $\lambda = 11.0 \text{ cm}$ is 20 Mw. The diaphragmed waveguide

U/ 69/62, 013, 004, 013, 011
B102, B103

... of the electron ...

by one ... of the ... continuous operation for 1-12 hrs a ... during three ... months. A set of mechanical pumps is used as a ... (1-2 to 10⁻⁵ mm Hg). The controls and switch gear are installed in a separate building. The accelerated electron beam is focused onto a ... target in a water pool. The bremsstrahlung which occurs in the target produces neutrons by (γ, n) or (γ, f) reactions. The neutrons of ~ 1.0 MeV have Maxwellian energy distribution. The yield is 10¹⁴ neutrons per sec. The entire unit is enclosed by a concrete shield (1.0 m thick) provided with several experimental channels (100, 200, and 300 mm wide) (Fig. 7). The current, spectrum, pulse shape, and radial distribution of the current density of the electron beam were measured. Numerical data are given for time of flight and background. There are 9 figures and 2 tables.

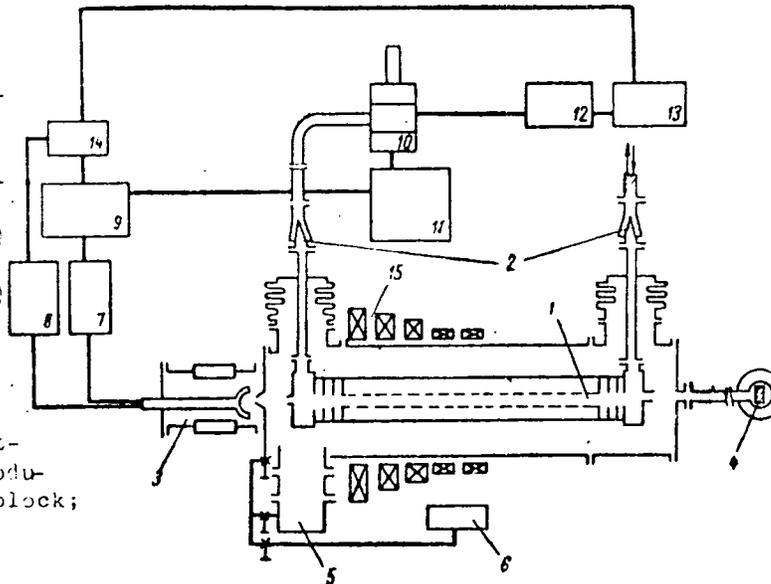
SUBMITTED: December 18, 1961

Card 3/6

50-Mev linear electron ...

U. S. G. P. O. 1970 03, 011
11/17/1970

Fig. 1. Schematic diagram of the accelerator. Legend: (1) accelerator tube; (2) leveling devices; (3) electron gun; (4) target with generator; (5) titanium pump; (6) forepump; (7) pulse transformer lens; (8) gun modulator; (9) klystron modulator; (10) klystron; (11) pulse transformer of klystron; (12) magnetron; (13) magnetron modulator; (14) starting block; (15) focusing coils.



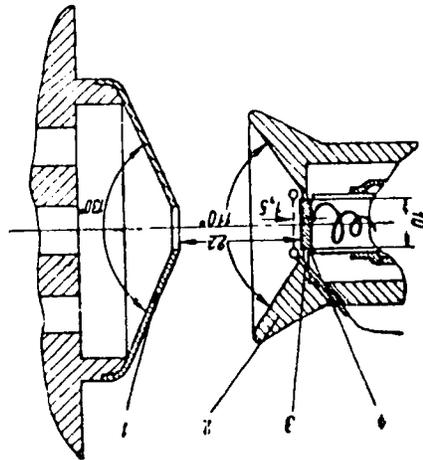
Card 5/6

30-Y v. laser electron ...

5/20/67/015/04/3/11
5103/B108

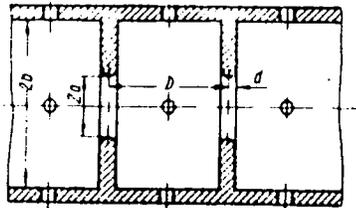
Fig. 1. Electron gun.

Legend: (1) cathode, (2) electrode near the cathode; (3) grid; (4) cathode.



Scale 1:1

Fig. 2. Dimensions of a tapered waveguide section. $b = 1.5$ mm, $a = 1$ mm, $d = 0.14$ mm, $ab = 0.14$ mm, $d = 0.14$ mm, over-
all length of section, and thickness
7 mm.



S/056/63/044/004/013/044
B102/B186

AUTHORS: Pevzner, M. I., Adamchuk, Yu. V., Danelyan, L. S.,
Yefimov, B. V., Moskalev, S. S., Muradyan, G. V.

TITLE: Neutron-spectroscopic investigations of Nuclear Levels. 1.
Neutron cross sections of molybdenum isotopes in the
7 - 15,000 ev energy range

PERIODICAL: Zhurnal eksperimental'noy i teoreticheskoy fiziki, v. 44,
no. 4, 1963, 1187 - 1194

TEXT: The time-of-flight method was used for determining the total neutron cross sections (path length 109.14 m) and the radiative capture cross sections (path length 15.1 m) for Mo isotopes from $A = 92$ to 100. The measurements were made by means of a neutron spectrometer (cf. Atomnaya energiya, 13, 327, 1962), and a linear electron accelerator was used as pulsed neutron source (OIIYaI Report P-956, Dubna, 1962); the pulse duration was $0.6 \mu\text{sec}$, the repetition frequency 100 cps, the channel width of the time analyzer $0.577 \mu\text{sec}$. The neutrons were detected by a stack of 230 proportional counters arranged in an aluminum tank filled with BF_3 (80% B^{10}). The

Card 1/2

S/056/63/044/004/013/044
B102/B186

Neutron-spectroscopic investigations...

detector area was 2500 cm^2 ; the thickness in the direction of the neutron trajectories was 17.6 cm. The highest resolution in the total cross-section measurements was $0.006 \mu\text{sec/m}$. The energy distribution of the total neutron cross section is graphically shown for the whole range investigated and the numerical results are tabulated for the great many resonance levels observed with the seven Mo isotopes investigated; E_0 , Γ_p , Γ_n , and Γ_n^0 are given. In the calculations, the interference between potential and resonance scatterings is taken into account. Also the strength function for the s-wave,

$S_0 = \Gamma_n^0/D$, is calculated for all isotopes. The weak levels detected

(Mo⁹⁵ - 110.8, 118.3, 220, 249, 267.3 ev; Mo⁹⁷ - 230 ev; Mo⁹⁸ 12 ev and Mo¹⁰⁰ 99.5 ev) are attributed to p-neutron capture. A series of double and even triple peak coincidences were observed; thus, for example, at $335 \pm 10 \text{ ev}$ Mo⁹², Mo⁹⁵ and Mo¹⁰⁰ have a peak; at $1520 \pm 10 \text{ ev}$, Mo⁹⁴, Mo⁹⁷ and Mo⁹⁸. There are 2 figures and 2 tables.

SUBMITTED: November 26, 1962

Card 2/2

ACCESSION NR: AP4012266

S/0089/64/016/001/0056/0058

AUTHORS: Danelyan, L. S.; Adamchuk, Yu. V.; Moskalev, S. S.; Pevzner, M. I.; Yastrebov, S. S.

TITLE: The radiative-capture cross-section of dysprosium isotopes in an energy range of 0.023-1 electron volts.

SOURCE: Atomnaya energiya, v. 16, no. 1, 1964, 56-58

TOPIC TAGS: absorber, burnable absorber, isotope mixture, natural mixture, capture cross-section, radiative capture, amplitude analyzer, dysprosium, thermal neutrons, neutron spectrum, reactor oscillator

ABSTRACT: The capture cross-sections of dysprosium isotopes have been measured by the flight-time method. A pulsating linear electron accelerator was used as a neutron source. A single-channel amplitude analyzer transmitting gamma-ray pulses with an energy of 1.6-5 Mev was added to the background to improve the effect. The total cross-section was measured by the neutron transmission in the 0.02-0.07 ev range with a view to determining the absolute cross section. But the lack of adequate quantities of separated isotopes

Card 1/2

ACCESSION NR: AP4012266

complicated the determination of the total cross sections in the entire energy range. The transmission of the dysprosium samples located midway between the accelerator target and the detector was recorded by a Gd^{155} sample placed in the detector. A mass-spectrometric analysis of Dy^{162} and Dy^{163} samples, designed to determine their content of Dy^{164} , Gd^{155} and Gd^{157} , was made with an Mc-2M mass-spectrometer. It was found that the Gd^{155} and Gd^{157} isotopes accounted for less than 0.01% which can produce a 10% error in defining the absolute values on the basis of the total cross sections.

"We are deeply grateful to V. S. Zolotarev and his associates for producing separated dysprosium isotopes; to G. M. Kukavadze for his useful advice, and to A. S. Alpeyev, A. Ya. Lunin, S. M. Strel'nikov and M. V. Safronova for their participation in the measuring and data processing."

Orig. art. has: 1 Figure, 1 Formula and 1 Table.

ASSOCIATION: None

SUBMITTED: 24Jun63

DATE ACQ: 14Feb64

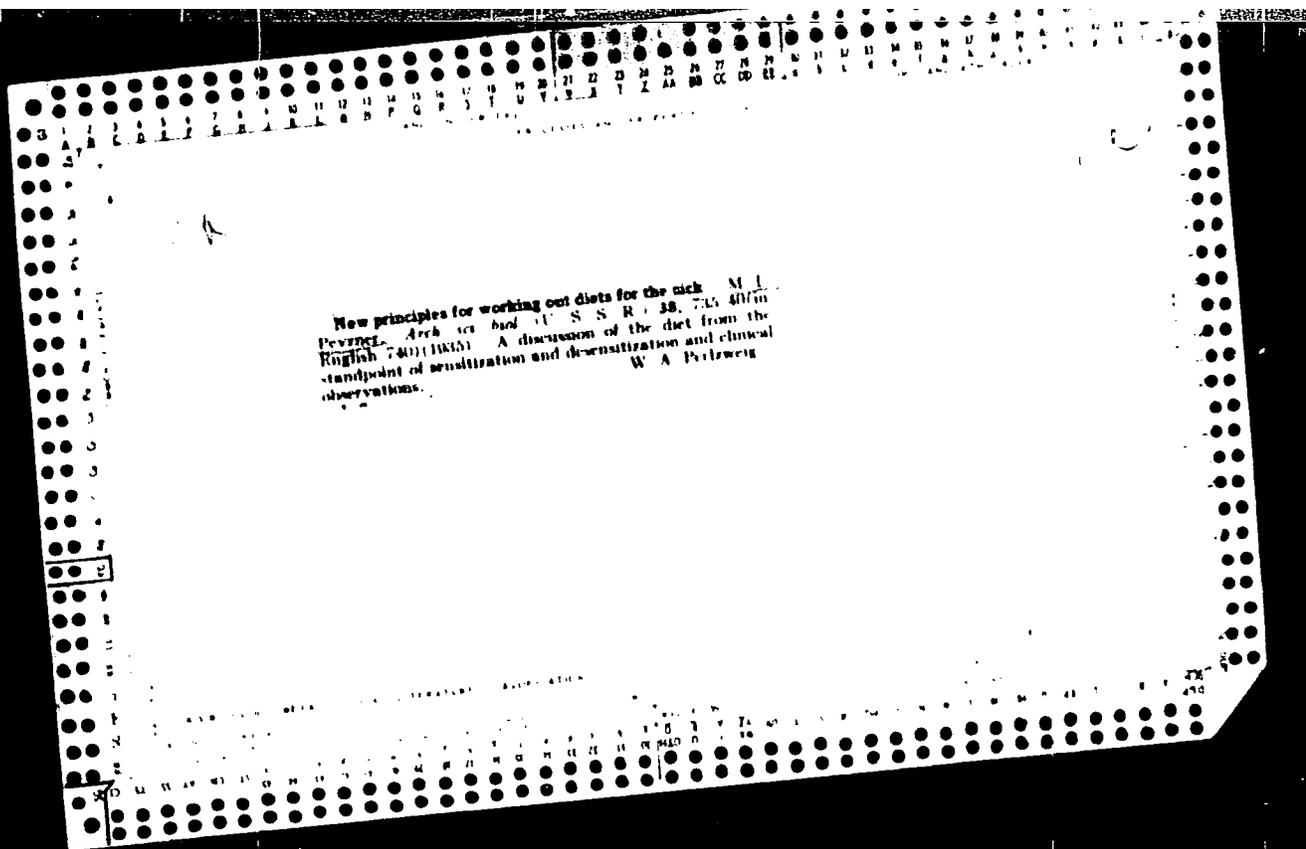
ENCL: 00

SUB CODE: PH

NR REF SOV: 002

OTHER: 003

Card 2/2



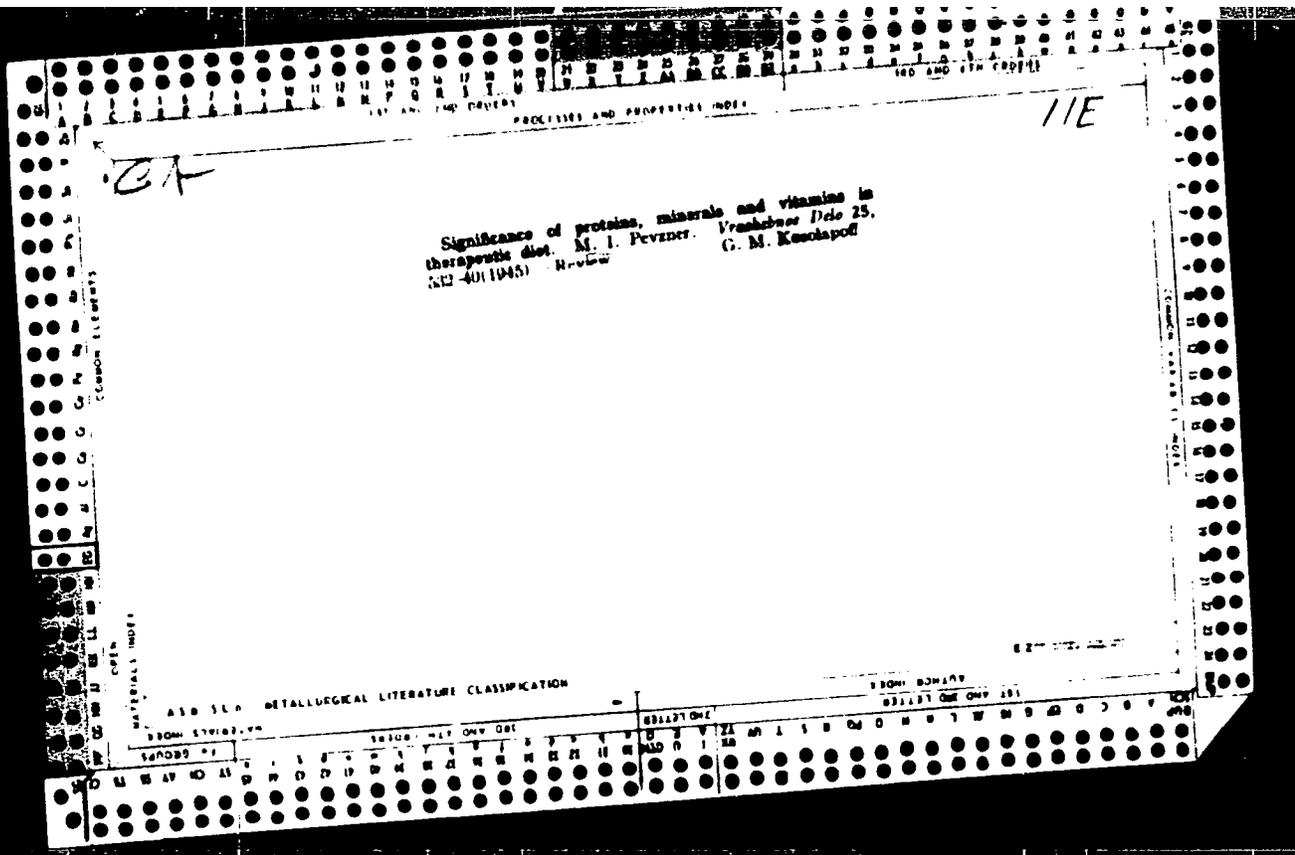
THE INFLUENCE OF THE DIET ON THE ALLERGIC STATE OF THE ORGANISM

M. I. Pevzner. *Acta Med. U. R. S. S. I.*, 330-7 (in French)(in Russian, 838-9)(1938); cf. *C. A.* 30, 8030¹, 8318².—Not only an excess or deficiency of carbohydrates, but also an excess of proteins can under certain conditions influence the allergic modification of the reactivity of the organism, though to a less marked degree. Avitaminosis D and hypervitaminosis D depress the sensitization, but the addn. of vitamin B (yeast) and vitamin A to an excess of vitamin D intensifies the allergic manifestations. An excess of carbohydrates (650-780 g. daily) caused relapse in 28 out of 37 cases of acute articular rheumatism. An excess of protein (200 g. daily) usually did not intensify the symptoms, although in some cases it caused a transitory aggravation followed by considerable improvement. An intake of 15 g. NaCl daily for 10 days intensified the symptoms in only 1 out of 10 rheumatic patients. These allergic cases, as well as expts. on sensitized animals, reveal 2 forms of hyperergic sensitization in one the harmful effect of the carbohydrates becomes evident very quickly (after 2-3 days); in the other the aggravation does not appear until 7-10 days after administration of an excess of carbohydrates or proteins.

Ruth Berggren

ASS. S. L. A. METALLOGICAL LITERATURE CLASSIFICATION

E 2



FEVZNER, Manuyl Isaakovich

Medicine

Stomach and duodenal ulcer Moskva, 1951.

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PEV (ER, Manu) Isakovich.

Diet in the complex therapy of tuberculosis. Moscow, 1947. 124 p. (M.I.B. text)
praktichesko vrache

PEVZNER, M. I. Prof.

"Progress in the Field of Medical Nutrition for Thirty Years," Sov. med.,
No.1, 1948

Clinic Med. Nutrition, Inst. Nutrition, AS USSR
Sci. Council, Inst. Nutrition, AS USSR

PEVNER, M. I.

27935. PEVNER, M. I. -- "Mekhanika yazvy shchivka i dvenadtsatiperstnyy kiskel".
Trudy XII Vsesoyuz. S"yezda terapevtov. 1., 1949, S. 74-8.

36: "Istoriya" Zhurnal'nykh Statey. Vol. 37, 1949.

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33577. Klinika, Diagnostika Raka Zheludka i P-rspektivy bor'by Protiv Rakovogo
Zabolevaniya Zheludka Terapevt. Arkhiv, 1949, Vyp. 5, c. 19-31

SO: Ietopis'nykh Statey, Vol. 45, Moskva, 1949

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Role of therapeutic diet in contemporary medicine. Ter. arkh.
22:4, July-Aug. 50. p. 13-20

1. Presented as a report on 5 June 1950 at the All-Union Conference on Therapeutic Nutrition held in Moscow.

CLML 19, 5, Nov., 1950

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PEVNER, M.I.; SANDIKOVA, M.S.; PRADIN, M.S.; CHUVAKIN, S.I.

Сведения о деятельности в период с 1945 по 1955 гг. (MIRA 12:2)

BELYSHEV, P.V.; USOV, G.V.; SOLOV'YEV, M.K. [deceased]; LEBEDEV, N.D.;
LEVIN, V.F.; PEVZNER, M.L.; USOV, A.M.; ZOLKIN, I.D.; KONONOV,
N.A.; IVANOV, P.P., red.; PANKRATOV, A.I., tekhn. red.

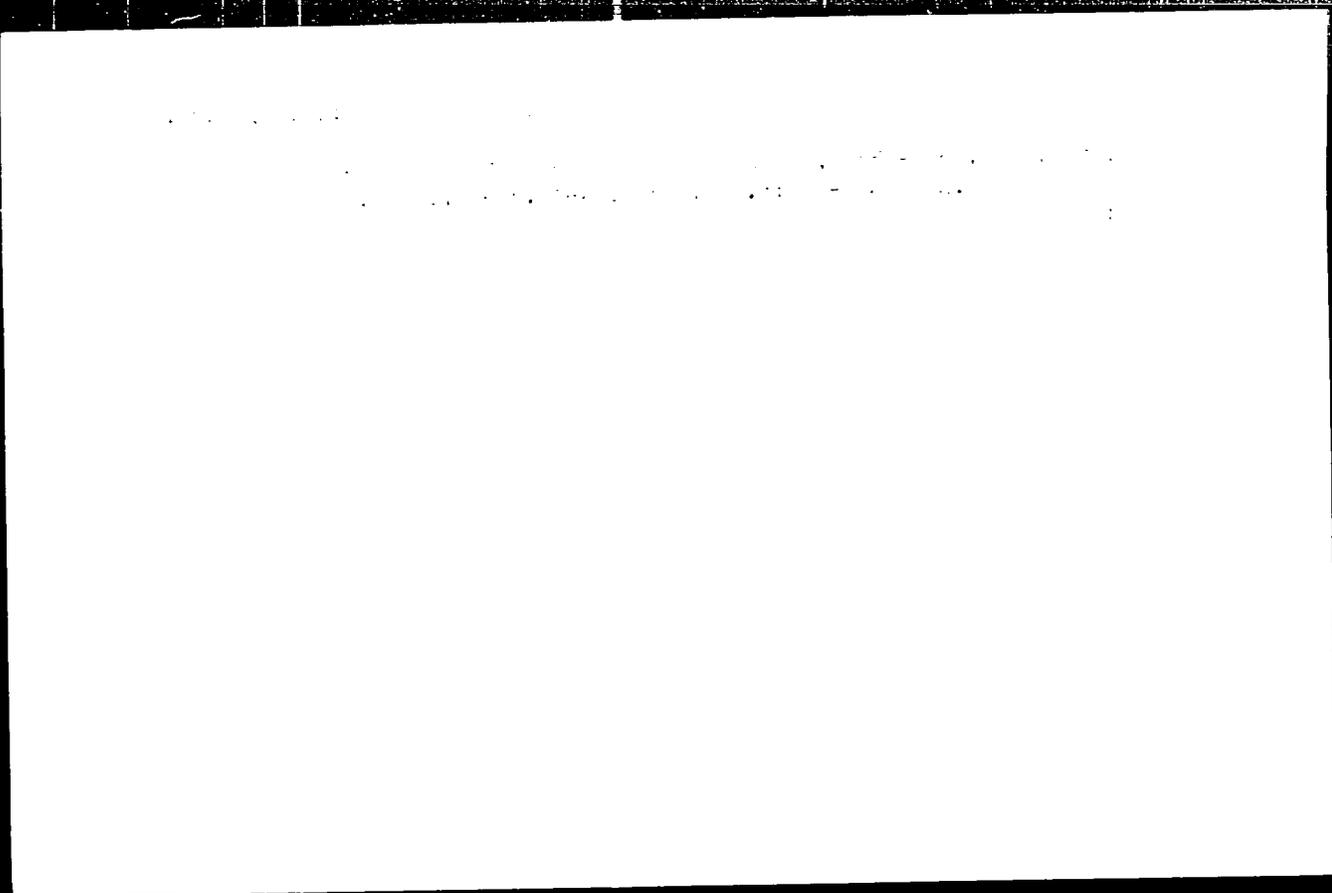
[Economics of a textile enterprise; for the aid of studying applied
economics] Ekonomika tekstil'nogo predpriatiia; v pomoshch' izu-
chaiushchim konkretnuiu ekonomiku. Ivanovo, Ivanovskoe knizhnoe izd-
vo, 1960. 359 p. (MIRA 14:7)

(Textile industry)

1. [Illegible text]

2. [Illegible text]

3. [Illegible text]



(4)

S/887/61/000/000/062/069
E202/E183

AUTHORS: Rutter E.G., Solomin N.I., Yudina L.P.,
Lebedeva V.M., Pevzner M.L., and Sobolev A.I.

TITLE: Method of bright nickel coating using ultrasonics.
A.c. no.118114, cl. 48a, 6⁰⁵ (z. no.59)494 of January 24,
1958)

SOURCE: Sbornik izobreteniy; ul'trazvuk i yego primeneniye.
Kom. po delam izobr. i otkrytiy. Moscow, Tsentr. byuro
tekhn. inform., 1961, 90-91.

TEXT: The proposed method of bright nickel coating from the
usual sulphuric acid electrolyte with a burnishing agent uses only
a low specific intensity of ultrasonic oscillations, yet speeds
the nickel coating process and improves the quality of the nickel
deposits (mirror luster, resilience and absence of pores or solid-
particle inclusions). The ultrasonic irradiation of the
electrolyte is at a frequency of 20-30 Mc/s and a volume intensity
of 1-3 W/litre. The electrolysis is carried out with a current
density of 8-12 A/dm² and a lowered concentration of 0.2-0.8 g/
litre of the sodium salt of naphthalene disulphuric acid
Card 1/2

Method of bright nickel coating ...

S/887/61/000/000/062/069
E202/E183

(isomers 2.6-2.7). The electrolyte has the following composition:
nickel in sulphuric acid 200-250 g/litre; boric acid 25-30
g/litre; sodium chloride 20-40 g/litre; sodium salt of
naphthalene disulphonic acid (isomers 2.6-2.7) 0.25-0.8 g/litre.
The temperature of the electrolyte should be within the range
45-55 °C.

[Abstracter's note: Complete translation.]

Card 2/2

PEVZNER, M. L.

Ways to increase the efficiency of Transbaikalia complex metal
ore dressing. Trudy Vost. Sib. fil. AN SSSR no.41:39-45 '62.
(MIRA 15:10)

1. Irkutskiy nauchno-issledovatel'skiy institut redkikh metallov.

(Transbaikalia--Nonferrous metals)
(Ore dressing)

37.237.100
AM4.A1.1

11800 1371

AUTHORS Revner, M.L., Subolev, A.I.

TITLE Investigating the possibilities of intensifying the process of lustrous nickel plating by ultrasonics

PERIODICAL Vseratnyy zhurnal. Mashtabnyy yazyk. Moscow, 1961, No. 1, pp. 22-24, 22BA41 ("Tr. Proektov, tekhnol. i nauka", Moscow, 1961, No. 1, p. 22)

TEXT: The authors present the results of investigations carried out at the Gor'kovskiy zavod (Gor'kiy Automobile Plant) to find out the possibilities of a practical application of ultrasonics for the intensification of metal plating processes in baths of semi-industrial and industrial volumes. In the production process problems of producing a tube generator and an emitter system designed for protracted operation in the electrolyte were solved. The piezoelectric strictive HG1.4 (NEL-4) converter with an emitting surface of 40 x 20 mm and resonance frequency of 21.3 kilocycles was used as converter. To protect the converter from cavitation a special jacket was designed which was covered by a thin diaphragm on the emission side. Cooling water pressure and temperature were

Card 1/3